

## Practice

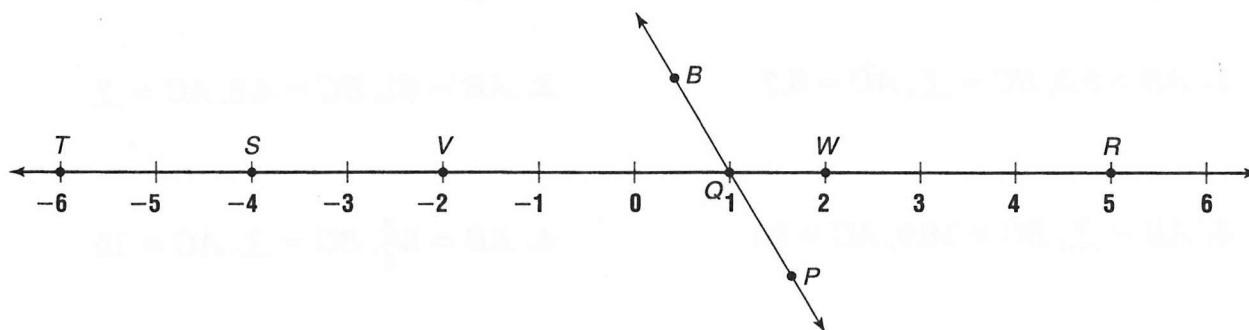
## Homework Module 4

Student Edition

Pages 36-43

**Midpoints and Segment Congruence**

Refer to the figure below for Exercises 1-8 to determine whether each statement is true or false.

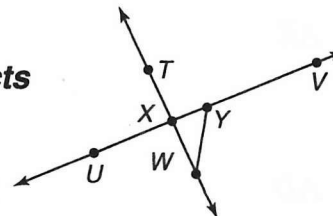


- $\overline{PB}$  bisects  $\overline{RS}$ .
- S is the midpoint of  $\overline{TV}$ .
- $\overline{SV} \cong \overline{TS}$
- V is the midpoint of  $\overline{TW}$ .
- W bisects  $\overline{VR}$ .
- $\overline{WR} \cong \overline{QV}$
- $\overline{SW}$  is longer than  $\overline{VR}$ .
- $VW \leq TV$

Given the coordinate of one endpoint of  $\overline{AB}$  and its midpoint M, find the coordinates of the other endpoint.

- A(0, 9), M(2, 5)
- B(-5, 1), M(1, -1)
- A(-2, 3), M(0.5, 0.5)
- A(4, 2), M(-2, 10)

In the figure at the right,  $\overline{WY}$  bisects  $\overline{UV}$  at Y and  $\overline{UY}$  bisects  $\overline{TW}$  at X. For each situation, find the value of x and the measure of the indicated segment.



- $UY = 4x - 3$ ,  $YV = x$ ; UV
- $UV = x + 6$ ,  $UY = x - 1$ ; YV
- $TX = 2x + 1$ ,  $XW = x + 7$ ; TW
- $WX = x + 5$ ,  $TW = 4x + 5$ ; TX